

Bramnik, Andrew

From: Gary Greubel <Gary.Greubel@waupacafoundry.com>
Sent: Friday, February 14, 2014 2:19 PM
To: Bramnik, Andrew
Cc: Bryant Esch; Andrew Kress; Gary Greubel
Subject: Re: Request for Additional Information related to EN 49689
Attachments: RPK_848_Manifest_14_0004R_29_January_2014 Received at RAM Services.pdf

Dear Mr. Bramnik,

As discussed on the phone this afternoon, attached below to your original email are the responses to your additional inquiries.

If you have any further questions or comments in regards to this matter, please contact me at the below contact information.

Regards,

Gary Greubel
Radiation Safety Officer

Gary Greubel | Environmental, Health, Safety & Training Manager Waupaca Foundry, Inc., Plant 5
9856 Highway 66 | Tell City, IN 47586
T: (812) 547-0737 | F: (812) 547-0719
gary.greubel@waupacafoundry.com | www.waupacafoundry.com

From: "Bramnik, Andrew" <Andrew.Bramnik@nrc.gov>
To: Gary Greubel <Gary.Greubel@waupacafoundry.com>
Date: 02/10/2014 03:24 PM
Subject: Request for Additional Information related to EN 49689

Good afternoon Mr. Greubel –

As discussed during our telephone conversation on Monday, February 10, 2014, we had a few questions regarding your letter dated January 31, 2014, which reported details about the subject event. Please reply to this e-mail with additional information regarding the items below by Friday, February 14, 2014. Thank you in advance for your time and assistance,

Andrew M. Bramnik
Health Physicist (Inspector)
U.S. Nuclear Regulatory Commission, Region III
Work: 630-829-9543 | Fax: 630-515-1259
E-Mail: andrew.bramnik@nrc.gov

1. In Section IV of your letter you stated, in part, that "It was determined that the damage to the gauge was a result of being exposed to the high ambient temperatures coming from the shell of the cupola due to the lack of cooling water due to the cooling water being secured for repairs of water leaks." Can you please identify the specific Root Cause of the event, if one is known? Were there any Contributing Causes for the event, if one or any are known?

After discussion with our management group here in regards to a specific Root Cause, it was determined the original design of the cooling water system is the Root Cause of the incident. This is due to the same cooling water system as currently designed cools the cupola shell and in effect also cools the fixed gages. This design is currently being modified by providing for a permanently installed and independent cooling water source for fixed gages. The timeline is presented in question 3 of your request.

2. In Section VI of your letter you stated, in part, that "On January 28, 2014, the damaged gage [sic] was picked up for transport to RAM Services, Inc. and future disposal." Can you please expand on that discussion? Was the damaged gauge picked up by RAM Services, Inc. directly, or was the package transferred to a common carrier for transportation? If the gauge has been received by RAM Services, can you please provide documentation that they have received it under the terms and conditions of their Agreement State license?

RAM Services removed the damaged gage and packaged it for shipment on January 17, 2014. The RAM Services technician did not transport the damaged gage off property at that time. The damaged gage was picked for delivery to RAM Services on January 28, 2014 by a separate carrier, ADCOM Express.

Attached below is the shipping document showing RAM Services receiving the damaged gage on January 29, 2014.

3. In Section VI of your letter, you stated, in part, corrective actions that will be completed. These actions included installing cooling shrouds, installing plumbing for independent cooling water sources, and installing area ambient temperature thermocouples. Can you please provide an estimate on when these actions will be completed? For all of the five corrective actions proposed, can you please assess whether these will adequately address the Root (and Contributing) Causes of the event discussed in item 1 of this e-mail?

(1) Installation of the new mounting brackets for the lower gage is currently scheduled for March 1, 2014. I am currently working with Thermo Fisher to arrange for a technician on the same day to install the ductile cupola gage and relocate our gray cupola gage. The relocating of the gage is not directly tied to the independent cooling water system but will locate the lower gage in a location exposed more to ambient temperatures than the temperature of the cupola shell in the event cupola cooling water is compromised.

(2) The cooling shroud that was installed did not fit properly when installed. The drawings have been revised to reflect the necessary changes. The cooling shroud is a custom application. The purchase order for the new shrouds has been issued. The delivery date for the custom shrouds is approximately April 30, 2014. The installation of the shrouds is directly related to and will adequately address the Root Cause in that the independent cooling water system will now be directed to the fixed gage housing itself.

(3) The plumbing for the independent cooling water system was completed on February 12, 2014. The independent cooling water system is directly related to and will adequately address the Root Cause in that the gages are no longer relying on being cooled by the same cooling system as the cupola.

(4) The ambient air area monitoring is slated to be completed by March 31, 2014. Currently we are waiting on additional PLC cards to arrive (approximately 3-4 weeks out) as well as some conduit to be ran. The programming to monitor the temperature was completed on February 8, 2014. The ambient air monitoring is directly related to and will adequately address Root Cause. The thermocouple setting will be established once they are on line and a baseline temperature has been determined.

(5) The different methods of level detection continue to be investigated in order to get away from using fixed nuclear gages. Corporate Waupaca has had two meetings with the manufacturer of the cupola in regards to different methods available. There is not a time line associated with this action.

4. In Section VII of your letter, you stated that "Due to the immediate evacuation of the area and the follow up surveys, there were no overexposures to any Waupaca personnel during this event." Can you please expand on that discussion, including how that determination was reached? Were there any calculations or assessments to determine what the highest dose to an individual might have been, even if there was no overexposure of the regulatory limits?

The survey readings from the day of the incident were compared to survey readings taken on September 14, 2013. The only area noted as being above the previous readings that are accessible by personnel was directly across from the damaged gage by the receiver. The area of the receiver is located in an isolated part of the facility. The area was noted and all personnel were informed to stay away from this area until the damaged gage could be removed.

The initial finding of the cupola shell being in a possible overheated condition was noted by a melt maintenance employee. The area where the employee was standing when they made the observation was surveyed and found to be at background levels.

The confirming of the damaged gage was conducted by a trained Radiation Safety Officer who used distance and shielding to their advantage when approaching and making the determination. The RSO exited the area immediately upon confirming damage to the gage and ordered the evacuation of the decks surrounding the damaged gage as well. Personnel were not allowed to enter the upper portions of the melt department until surveys of those areas were conducted.

(See attached file: RPK_848_Manifest_14_0004R_29_January_2014 Received at RAM Services.pdf)

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this E-mail in error please notify the system manager.

RAMPAK 848

APPROVED BY OMB: NO. 3150-0164 Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (1-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollections.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NIOB-10202, (2150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (8-2010) UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST SHIPPING PAPER		RAM SERVICES, INC. WAUPACA FOUNDRY, INC. IFOR THE ACCT OF RAM SERVICES 9856 HIGHWAY 66 TELL CITY, IN 47886		SHIPPER I.D. NUMBER 62092 <input type="checkbox"/> COLLECTOR <input type="checkbox"/> PROCESSOR <input checked="" type="checkbox"/> GENERATOR TYPE (Specify)	7. NRC FORM 540 AND 540A PAGE 1 OF 1 PAGE(S) NRC FORM 541 AND 541A PAGE(S) 1 PAGE(S) NRC FORM 542 AND 542A PAGE(S) 1 PAGE(S) ADDITIONAL INFORMATION None PAGE(S)	8. MANIFEST NUMBER (Use this number on all continuation pages) 14-0994 R											
1. EMERGENCY TELEPHONE NUMBER (include Area Code) 800-424-9300		T-WH004-H14 SHIPMENT NUMBER 14-0004 R		9. CONSIGNEE - Name and Facility Address RAM SERVICES, INC. 610 COUNTY HIGHWAY V TWO RIVERS, WI 54241		CONTACT JERRY WIZA TELEPHONE NUMBER (include Area Code) 920-686-3889											
ORGANIZATION CHEMTREC (CONT # 210954)		CONTACT GARY GREUBEL		TELEPHONE NUMBER (include Area Code) 812-547-0737		DATE 29 JAN 2014											
2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST 1		6. CARRIER - Name and Address ADCOM EXPRESS, INC. 17659 DUVAN DRIVE TINLEY PARK, IL 60477		SIGNATURE -- Authorized consignee acknowledging waste receipt Jerry Wiza, RSO											
4. DOES EPA REGULATED WASTE REQUIRE A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes" provide Manifest Number		EPA MANIFEST NUMBER		EPA ID NUMBER ILD047267364		10. CERTIFICATION: This is to certify that the herein-named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. This also certifies that the materials are classified, packaged, marked, and labeled and are in proper condition for transportation and disposal as described in accordance with the applicable requirements of 10 CFR Parts 20 and 61, or equivalent state regulations.											
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		CONTACT JAMES BELL		SHIPPING DATE 01/28/2014													
11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (including proper shipping name, hazard class, UN ID number, and any additional information)		12. DOT LABEL "RADIOACTIVE"		13. TRANSPORT INDEX		14. PHYSICAL AND CHEMICAL FORM		15. UN IDENTIFICATION NUMBER		16. TOTAL PACKAGE ACTIVITY (MBq)		17. LSAS/DO CLASS		18. TOTAL WEIGHT OR VOLUME (Use appropriate units)		19. IDENTIFICATION NUMBER OF PACKAGE	
UN 2915, Radioactive material, Type A package, 7		MA 11 Yellow		0.3		SOLID SEALED SOURCE		Cs-137		3.7000E+03 (1.000E-01 Ci)		NA		30 LBS; 1.4 FT3		14-0004-01 #1535	
FOR CONSIGNEE USE ONLY																	

APPROVED BY OMB: NO. 3150-0166
EXPIRES: 08/31/2013

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F63), U.S. Nuclear Regulatory Commission, Washington, DC 20556-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST										1. MANIFEST TOTALS				2. MANIFEST NUMBER					
CONTAINER AND WASTE DESCRIPTION										SPECIAL NUCLEAR MATERIAL (grams)				14-0004 R					
Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste										ACTIVITY (MBq)				3. PAGE 1 OF 1 PAGE(S)					
										ALL NUCLIDES				4. SHIPPER NAME					
										3.7000E+03				WAUPACA FOUNDRY, INC.					
										TRITIUM				SHIPPER I.D. NUMBER					
										NP				62092					
DISPOSAL CONTAINER DESCRIPTION										WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER									
5. CONTAINER IDENTIFICATION NUMBER/GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m ³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL (uSv/hr) (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm ²)		11. PHYSICAL DESCRIPTION			14. CHEMICAL DESCRIPTION		15. RADIOLOGICAL DESCRIPTION		16. WASTE CLASSIFICATION AS Class A Stable AU-Class A Unstable B-Class B C-Class C					
					ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER (m ³)	13. SORBENT/SOLIDIFICATION/STABILIZATION MEDIA (See Note 3)	CHEMICAL FORM/CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT							
14-0004-01 #153562092	4	0.0396	13.6078	1.7000E+02	NP	NP	36	0.0396	100	100	SEALED SOURCE/NP	0	Cs-137 Total	3.7000E+03 3.7000E+03	AU				

Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks the numerical code must be followed by "-OP."

1. Wooden Box or Crate	9. Demeritalzer
2. Metal Box	10. Gas Cylinder
3. Plastic Drum or Pail	11. Bulk Unpackaged Waste
4. Metal Drum or Pail	12. Unpackaged Components
5. Metal Tank or Liner	13. High Integrity Container
6. Concrete Tank or Liner	18. Other. Describe in Item 6 or additional page
7. Polyethylene Tank or Liner	
8. Fiberglass Tank or Liner	

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal	26. Demolition Rubble	38. Evaporator Bottoms/Sludges/Concentrates
21. Incinerator Ash	30. Cation Ion-exchange Media	39. Compactable Trash
22. Soil	31. Anion Ion-exchange Media	40. Noncompactable Trash
23. Gas	32. Mixed Bed Ion-exchange Media	41. Animal Carcass
24. Oil	33. Contaminated Equipment	42. Biological Material (except animal carcass)
25. Aqueous Liquid	34. Organic Liquid (except oil)	43. Activated Material
26. Filter Media	35. Glassware or Labware	59. Other. Describe in Item 11 or additional page
27. Mechanical Filter	36. Sealed Source/Device	
28. EPA or State Hazardous	37. Paint or Plating	

Note 3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

Sorbtion				Solidification			
60. Speedi On	64. Safe T Sorb	69. Chemal 30	74. Petrosel	89. Other. Describe in item 13, or additional page	90. Cement (encapsulation)	94. Vinyl Ester Styrene	
61. Celetom	65. Safe N On	70. Chemal 60	75. Petrosel II		91. Concrete	99. Other. Describe in item 13, or additional page	
62. Floor Dry/Supertine	66. Florco	71. Chemal 3030	76. Aquaset II		92. Bitumen		
63. H Dr	67. Flores K	72. Dicaport HP200	77. Aquaset II		93. Vinyl Chloride	100. None Required	
	68. Solid A Scrub	73. Dicaport HP500					

NRC FORM 541 (8-2010)

APPROVED BY OMB: NO. 3150-0165
EXPIRES: 07/31/2010

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-S F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

4. GENERATOR IDENTIFICATION NUMBER		5. GENERATOR NAME PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER		6. GENERATOR FACILITY ADDRESS		7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m ³)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL			
										A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY (MBq)	D. VOLUME (m ³)
62092		WAUPACA FOUNDRY, INC. 812-547-0737		/FOR THE ACCT OF RAM SERVICES 5956 HIGHWAY 66 TELL CITY, IN 47586			14-0004 R (01/28/2014)	C	IN	0.0000E+00	0.0000E+00	3.7000E+03	0.0395
TOTALS OF ALL PAGES (NRC FORMS 542 AND 542A)										0.0000E+00	0.0000E+00	3.7000E+03	0.0395

NRC FORM 542 (7-2007)

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST
ISOTOPES REPORT

For Manifest # 14-0004 R
RAM SERVICES, INC.

Isotope	Total Activity	
	(MBq)	(mCi)
Cs-137	3.7000E+03	1.0000E+02